

WHAT IS CLAIMED IS:

1. A financial system comprising:

(a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first period of time of relatively long duration;

(b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

(c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

(d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

2. The financial system of claim 1 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.

3. A financial process comprising the steps of:

(a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first period of time of relatively long duration;

(b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

(c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

(d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

4. The financial process of claim 3 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.

5. A financial system comprising:

(a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior asset flows by maintaining momentum during an existing first period of time of relatively long duration;

(b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

(c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

(d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

(e) said second mentioned means for selecting operating in accordance with the following regression:

$$RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i$$

, where

RMF_t^i
= return for portfolio or mutual fund i at time t (i.e., month t),
 RTB_t
= return for specified asset at time t,

α^i

= alpha of mutual fund i,

β^i

= beta (i.e., slope coefficient) for mutual fund i,

RAC_t

= return for mutual fund asset class at time t, and

e_t^i

= error term for mutual fund i at time t. Therefore, the estimated equation is of the form:

$$\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$$

, where alpha and beta are estimates.

6. The financial system of claim 5 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.

7. A financial process comprising the steps of:

(a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;

(b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

(c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

(d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

(e) said second mentioned step of selecting being performed in accordance with the following regression:

$$RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i$$

, where

RMF_t^i
= return for mutual fund i at time t (i.e., month t),
 RTB_t
= return for Treasury Bill at time t,
 α^i
= alpha of mutual fund i,
 β^i
= beta (i.e., slope coefficient) for mutual fund i,
 RAC_t
= return for mutual fund asset class at time t, and
 e_t^i
= error term for mutual fund i at time t.

the estimated equation being of the form:

$$\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$$

, where alpha and beta are estimates.

8. The financial process of claim 7 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.

9. A financial system comprising:

(a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;

(b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

(c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

(d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

(e) said second mentioned means for selecting operating in accordance with the following regression:

$$RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i$$

, where

RMF_t^i
= return for mutual fund i at time t (i.e., month t),

RTB_t
= return for specified asset at time t,

α^i
= alpha of mutual fund i,

β^i
= beta (i.e., slope coefficient) for mutual fund i,

RAC_t
= return for mutual fund asset class at time t, and

e_t^i
= error term for mutual fund i at time t, the estimated equation being in the form:

$$\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$$

, where alpha and beta are estimates.

10. The financial system of claim 9 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.

11. A financial process comprising the steps of:

- (a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned selecting operating in accordance with the following regression:

$$RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i$$

, where

$$RMF_t^i$$

= return for mutual fund i at time t (i.e., month t),

$$RTB_t$$

= return for specified asset at time t,

$$\alpha^i$$

= alpha of mutual fund i,

$$\beta^i$$

= beta (i.e., slope coefficient) for mutual fund i,

$$RAC_t$$

= return for mutual fund asset class at time t, and

$$e_t^i$$

= error term for mutual fund i at time t, the estimated equation being in the form:

$$\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$$

, where alpha and beta are estimates.

12. The financial process of claim 11 wherein said first designated period of time is at least two years and said second designated period of time is at most two years.

13. A financial system comprising:

(a) means for selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;

(b) means for selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

(c) means for establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

(d) means for tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.

(e) said second mentioned means for selecting operating in accordance with the following regression:

$$RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i$$

, where

RMF_t^i
= return for mutual fund i at time t (i.e., month t),

RTB_t
= return for Treasury Bill at time t,

α^i
= alpha of mutual fund i,

β^i
= beta (i.e., slope coefficient) for mutual fund i,

RAC_t

= return for mutual fund asset class at time t, and

e_t^i

= error term for mutual fund i at time t, the estimated equation being in the form:

$$\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$$

, where alpha and beta are estimates.

(f) said means for establishing and optimizing operating in accordance with the following:

(1) for each of the securities in the selected portfolio/funds, combine the unique identifier and shares data with pricing data in order to calculate market value weightings. In addition to price, add other fields such as CUSIP, transaction costs, liquidity, description, and industry sector. In short, combine the portfolio data with the asset class data for that specific benchmark. Also, for each portfolio/fund, consolidate any securities with duplicate identifiers (i.e. CUSIPS) by summing up the market value for that identifier.

(2) for each portfolio/fund in the benchmark, calculate the estimated total market value for that portfolio as follows:

$$PMV = \sum_{i=1}^N Shares_i * Price_i$$

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

(3) Sum up all the PMVs

$$TBMV = \sum_{j=1}^J PMV^j$$

, where J = the number of portfolios/funds in the benchmark (in this case 4), and TBMV = total benchmark market value);

(4) create a scaling factor in order to equally weight the portfolios by taking the reciprocal of the weight of each portfolio as follows:

$$SF^j = 1 / (PMV^j / TBMV)$$

where

SF^j
= the scaling factor for the jth portfolio/fund.

(5) adjust the scaling factor so that the sum of the scaling factors equal unity,

$$ASF^j = SF^j / \sum_{j=1}^J SF^j$$

, where

ASF^j
= the adjusted scaling factor for the jth portfolio/fund, and

$$\sum_{j=1}^J ASF^j = 1$$

(6) adjust the securities in the benchmark so that each portfolio/fund receives an equal weight (as opposed to each security) by multiplying each security in each portfolio/fund by its appropriate adjusted scaling factor,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

AMV_i^j
= the adjusted market value of security i in portfolio/fund j; and

(7) based on step (6), create an adjusted weight for each security in each portfolio/fund in the benchmark,

$$x_i^j = AMV_i^j / (\sum_{i=1}^j \sum_{j=1}^N AMV_i^j * J)$$

, where

x_i^j
= the weight of the i th security in the j th portfolio/fund, and

$$\sum_{i=1}^j \sum_{j=1}^N x_i^j = 1 / J$$

(by construction).

14. A financial process comprising the steps of:

- (a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns and/or asset flows by maintaining momentum during an existing first period of time of relatively long duration;
- (b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;
- (c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and
- (d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio.
- (e) said second mentioned step of selecting operating in accordance with the following regression:

$$RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i$$

, where

RMF_t^i

= return for mutual fund i at time t (i.e., month t),

RTB_t

= return for specified asset at time t,

α^i

= alpha of mutual fund i,

β^i

= beta (i.e., slope coefficient) for mutual fund i,

RAC_t

= return for mutual fund asset class at time t, and

e_t^i

= error term for mutual fund i at time t, the estimated equation being in the form:

$$\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$$

, where alpha and beta are estimates.

(f) said establishing and optimizing operating in accordance with the following:

(1) for each of the securities in the selected portfolio/funds, combine the unique identifier and shares data with pricing data in order to calculate market value weightings. In addition to price, add other fields such as CUSIP, transaction costs, liquidity, description, and industry sector. In short, combine the portfolio data with the asset class data for that specific benchmark. Also, for each portfolio/fund, consolidate any securities with duplicate identifiers (i.e. CUSIPS) by summing up the market value for that identifier.

(2) for each portfolio/fund in the benchmark, calculate the estimated total market value for that portfolio as follows:

$$PMV = \sum_{i=1}^N Shares_i * Price_i$$

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

(3) Sum up all the PMVs (i.e.,

$$TBMV = \sum_{j=1}^J PMV^j$$

, where J = the number of portfolios/funds in the benchmark (in this case 4), and TBMV = total benchmark market value);

(4) create a scaling factor in order to equally weight the portfolios by taking the reciprocal of the weight of each portfolio as follows:

$$SF^j = 1 / (PMV^j / TBMV)$$

where

$$SF^j$$

= the scaling factor for the jth portfolio/fund.

(5) adjust the scaling factor so that the sum of the scaling factors equal unity,

$$ASF^j = SF^j / \sum_{j=1}^J SF^j$$

, where

$$ASF^j$$

= the adjusted scaling factor for the jth portfolio/fund, and

$$\sum_{j=1}^J ASF^j = 1$$

(6) adjust the securities in the benchmark so that each portfolio/fund receives an equal weight (as opposed to each security) by multiplying each security in each portfolio/fund by its appropriate adjusted scaling factor,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

$$AMV_i^j$$

= the adjusted market value of security i in portfolio/fund j; and

(7) based on step (6), create an adjusted weight for each security in each portfolio/fund in the benchmark,

$$x_i^j = AMV_i^j / (\sum_{i=1}^j \sum_{j=1}^N AMV_i^j * J)$$

, where

$$x_i^j$$

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^j \sum_{j=1}^N x_i^j = 1 / J$$

(by construction).

15. A financial security produced by a financial process in accordance with the following steps:

(a) selecting, from the universe of asset classes, a restricted number of asset classes that have demonstrated superior returns by maintaining momentum during an existing first period of time of relatively long duration;

(b) selecting, from these asset classes, portfolios of assets that have demonstrated superior returns by maintaining momentum during an existing second period of time of relatively short duration;

(c) establishing and optimizing a benchmark based upon these portfolios of assets to identify a moving portfolio having calculated momentum, and

(d) tracking and periodically updating investment decisions to monitor and maintain the calculated momentum of the moving portfolio;

(e) said second mentioned step for selecting operating in accordance with the following regression:

$$RMF_t^i - RTB_t = \alpha^i + \beta^i (RAC_t - RTB_t) + e_t^i$$

, where

RMF_t^i
= return for mutual fund i at time t (i.e., month t),

RTB_t
= return for Treasury Bill at time t,

α^i
= alpha of mutual fund i,

β^i
= beta (i.e., slope coefficient) for mutual fund i,

RAC_t
= return for mutual fund asset class at time t, and

e_t^i
= error term for mutual fund i at time t, the estimated equation being in the form:

$$\hat{\alpha}^i = (RMF^i - RTB) - [\hat{\beta}^i (RAC - RTB)]$$

, where alpha and beta are estimates;

(f) said establishing and optimizing operating in accordance with the following:

(1) for each of the securities in the selected portfolio/funds, combine unique identifier and shares data with pricing data in order to calculate market value weightings;

in addition to price, add other fields such as CUSIP, transaction costs, liquidity, description, and industry sector. In short, combine the portfolio data with the asset class data for that specific benchmark; also, for each portfolio/fund, consolidate any securities with duplicate identifiers (i.e. CUSIPS) by summing up the market value for that identifier.

(2) for each portfolio/fund in the benchmark, calculate the estimated total market value for that portfolio as follows:

$$PMV = \sum_{i=1}^N Shares_i * Price_i$$

, where N = the number of securities in that portfolio/fund, and PMV = the portfolio/fund market value;

(3) Sum up all the PMVs (i.e.,

$$TBMV = \sum_{j=1}^J PMV^j$$

, where J = the number of portfolios/funds in the benchmark (in this case 4), and TBMV = total benchmark market value);

(4) create a scaling factor in order to equally weight the portfolios by taking the reciprocal of the weight of each portfolio as follows:

$$SF^j = 1 / (PMV^j / TBMV)$$

where

$$SF^j$$

= the scaling factor for the jth portfolio/fund.

(5) adjust the scaling factor so that the sum of the scaling factors equal unity,

$$ASF^j = SF^j / \sum_{j=1}^J SF^j$$

, where

$$ASF^j$$

= the adjusted scaling factor for the jth portfolio/fund, and

$$\sum_{j=1}^J ASF^j = 1$$

(6) adjust the securities in the benchmark so that each portfolio/fund receives an equal weight (as opposed to each security) by multiplying each security in each portfolio/fund by its appropriate adjusted scaling factor,

$$AMV_i^j = MV_i^j * ASF^j$$

, where

$$AMV_i^j$$

= the adjusted market value of security i in portfolio/fund j; and

(7) based on step (6), create an adjusted weight for each security in each portfolio/fund in the benchmark,

$$x_i^j = AMV_i^j / (\sum_{i=1}^J \sum_{j=1}^N AMV_i^j * J)$$

, where

$$x_i^j$$

= the weight of the ith security in the jth portfolio/fund, and

$$\sum_{i=1}^j \sum_{i=1}^N x_i^j = 1/J$$

(by construction).